

DOCKET NO. D-96-21-2

DELAWARE RIVER BASIN COMMISSION

**Moyer Packing, Rendering, and Beef Facility
Industrial Wastewater Treatment Plant Discharge Modification
Franconia Township, Montgomery County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an application submitted to the Delaware River Basin Commission (DRBC or Commission) by Smithfield Beef Group on behalf of its subsidiary the Moyer Packing, Rendering, and Beef Facility (MOPAC) on September 20, 2005 (Application), for review of an industrial wastewater treatment plant (IWTP) discharge modification project. The Pennsylvania Department of Environmental Protection (PADEP) supports the proposed modifications and plans to modify the docket holder's National Pollutant Discharge Elimination System (NPDES) Permit No. PA 0035769, following Delaware River Basin Commission (DRBC or Commission) action. PADEP has administratively extended the NPDES Permit until the amendment is processed.

The Application was reviewed for approval under Section 3.8 of the *Delaware River Basin Compact*. The Montgomery County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on September 27, 2006.

A. DESCRIPTION

1. **Purpose.** The purpose of this project is to approve an effluent total dissolved solids (TDS) limit and to assure that the downstream designated uses of Skippack Creek are protected from adverse impacts from the IWTP discharge.

2. **Location.** The IWTP is located at the docket holder's rendering plant-site, located just north of the intersection of Moyer Road and south of Allentown Road, approximately 2,000 feet west of the Village of Elroy in Franconia Township, Montgomery County, Pennsylvania. The docket holder's meat packing facility and the rendering plant are located approximately one mile apart. Wastewater from the meat packing facility is pumped to the IWTP for treatment. The IWTP outfall discharges to Skippack Creek is located at River Mile 92.47 - 32.3 - 3.0 - 12.8.

The project outfall is located in the Schuylkill River Watershed as found on the *Telford*, PA USGS Quad as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
001	40° 16' 51"	75° 20' 37"

3. Area Served. The IWTP will continue to serve only the docket holder's rendering and meat packing facilities in Franconia Township, Montgomery County, Pennsylvania.

For the purpose of defining the Area Served, the Application is incorporated herein by reference consistent with conditions contained in the DECISION section of this docket.

4. Physical features.

a. Design criteria. MOPAC owns and operates meat packing and rendering facilities in Franconia Township, Pennsylvania, which include slaughter, fabrication and distribution rendering (which entails the recycling of animal by-products into raw materials for the animal feed, cosmetics and fertilizer industries). Wastewater at the meat packing plant-site is pumped to the rendering plant-site for treatment at the 0.75 million gallons per day (mgd) IWTP (1.07 mgd maximum flow) prior to discharge to Skippack Creek, a tributary of Perkiomen Creek in the Schuylkill River Watershed.

The IWTP provides fine screening and dissolved air flotation primary treatment. The IWTP typically removes over 95 percent of the influent BOD₅ through an extended secondary biological treatment process. An anoxic basin provides for de-nitrification; chemical coagulation and settling is used for phosphorus removal and tertiary filtration is provided. Chlorination/de-chlorination facilities are used for disinfection. The IWTP is not designed to remove TDS. No increase in treatment plant capacity is proposed.

b. Facilities. No new facilities were proposed in the application. Facilities and processes for the IWTP are described in DRBC Docket No. D-96-21, approved by DRBC on March 26, 1997.

The project facilities are above the 100-year flood elevation.

Wasted sludge will be hauled off-site by a licensed hauler for deposit at a State-approved facility.

c. Water withdrawals. The potable water supply in the project service area is supplied by the docket holder's own wells and by the North Penn Water Authority. The water withdrawal from the docket holder's wells is described in detail in Docket No. D-2002-26, which was approved by the DRBC on August 28, 2002.

d. NPDES Permit / DRBC Docket. The NPDES Permit No. PA0035769, for which PADEP issued a draft on May 15, 2006, includes effluent limitations for the project discharge of 0.75 mgd to surface waters classified by the PADEP as Trout Stocking. The following average monthly effluent limits are among those listed in the draft NPDES permit and

meet or are more stringent than the effluent requirements of the DRBC. PADEP approval of the NPDES Permit is pending DRBC action on this docket.

EFFLUENT TABLE: DRBC Parameters (*) Included in NPDES permit for Outfall 001

OUTFALL 001 to SKIPPACK CREEK		
PARAMETER	LIMIT	MONITORING
pH (Standard Units)	6 to 9 at all times *	as required in the NPDES Permit
Total Suspended Solids	30 mg/l (85% minimum removal *)	as required in the NPDES Permit
Dissolved Oxygen	5 mg/l (minimum at all times)	as required in the NPDES Permit
CBOD (5-Day at 20° C) (5-1 to 10-31) (11-1 to 4-30)	10 mg/l 20 mg/l (85% minimum removal *)	as required in the NPDES Permit
Ammonia Nitrogen (5-1 to 10-31) (11-1 to 4-30)	1.2 mg/l 3.6 mg/l	as required in the NPDES Permit
Fecal Coliform	200 colonies per 100 ml as a geo. mean	as required in the NPDES Permit
Phosphorus as P (4-1 to 10-31) (11-1 to 3-30) (1 st and 2 nd year of permit)	0.80 mg/l 1.60 mg/l	as required in the NPDES Permit
Phosphorus as P (4-1 to 10-31) (11-1 to 3-30) (3 rd , 4 th and 5 th year of permit)	0.29 mg/l 0.58 mg/l	as required in the NPDES Permit
Total Dissolved Solids	1,000 mg/l *	as required in the NPDES Permit
Osmotic Pressure	95 MOS/kg	as required in the NPDES Permit
Total Residual Chlorine	0.024 mg/l	as required in the NPDES Permit
Oil and Grease	15 mg/l	as required in the NPDES Permit

f. Relationship to the Comprehensive Plan. The project discharges to Skippack Creek, a tributary of Perkiomen Creek located in the drainage area of the Schuylkill River. The Schuylkill River is conditioned as “Modified Recreational” in the Schuylkill River Scenic Designation, which was added to the Comprehensive Plan on October 26, 1988 by D-78-50 CP (Revised).

B. FINDINGS

The limits in the draft NPDES Permit are in compliance with Commission effluent quality requirements, where applicable.

On September 20, 2005, MOPAC requested that DRBC confirm its Total Dissolved Solids (TDS) determination of 3,100 mg/l, which was issued to MOPAC by Docket No. D-83-6 on May 29, 1985 and Docket No. D-96-21 dated March 26, 1997. The docket holder also submitted to the PADEP a request that the effluent and reporting criteria for the National Pollutant Discharge Elimination System renewal permit, recently drafted by PADEP for the MOPAC facility, retain the TDS effluent limit of 100 milliosmoles/kg, as a substitute for TDS monitoring. The 100 milliosmoles/kg has been established to protect aquatic life.

The MOPAC facility discharge to Skippack Creek is located 2.7 river miles upstream from the Mainland Golf Course (MGC) irrigation system surface water supply intake. The MOPAC facility is located in Franconia Township and the MGC is in Towamencin Township near the Lower Salford Township line in Montgomery County. The Creek downstream of the MOPAC discharge is used by the MGC for irrigation of the golf course greens and fairways. MGC has presented information that the Creek water is responsible for a build-up of salts in the soil, causing significant damage to the green turf. MOPAC has informed the Commission that it does not admit to or deny the findings below.

The Commission's *Water Quality Regulations* (WQR or "Regulations") provide that "TDS shall not exceed 1,000 mg/l, or a concentration established by the Commission *which is compatible with designated water uses and stream quality objectives*, and recognizes the need for reserve capacity to serve future discharges." (WQR, Sec. 4.10.4D.2 (emphasis added)). The Regulations further provide that the quality of Basin waters is to be maintained for "controlled and regulated waste assimilation to the extent that such use is *compatible with other uses*." WQR, Sec. 3.10.2B.5. (emphasis added). The Commission has granted approval to facilities, including MOPAC, to discharge above 1,000 mg/l TDS under certain circumstances, in the absence of interference with other uses.

Commission staff has reviewed MOPAC's submittal and has determined that the TDS limit of 3,100 mg/l is not protective of one of the existing uses for the Skippack Creek that DRBC has designated as protected, namely agricultural use. The Commission defines agricultural use to include water used for irrigation. WQR, Sec. 1.20.6A. Pennsylvania's water quality standards include irrigation as a statewide protected water use. PADEP has indicated that it will rely on DRBC's final TDS determination for its final NPDES permit.

Near the project site, the Skippack Creek has an estimated Q-7-10 flow (defined as the seven day low flow with a recurrence interval of ten years) of 0.1 mgd (0.16 cfs). The ratio of

this low flow to the average design wastewater discharge from the 0.75 mgd IWTP is 0.13 to 1. Commission staff has determined that MOPAC's effluent TDS concentration must remain below 1,275 mg/l to allow MGC to use the Skippack Creek for irrigation purposes without applying extraordinary treatment. PADEP has also determined that MOPAC's TDS discharge must be less than 1,275 mg/l for a resultant instream concentration of 750 mg/l to be achieved in the Skippack Creek at MGC during the estimated Q-7-10 flow of 0.16 cfs. Irrigation water with a TDS concentration of less than 750 mg/l is generally considered acceptable for green sod.

In its September 20, 2005 submission, MOPAC estimated that it would cost over \$2,500,000 (capital costs) to upgrade the MOPAC IWTP to achieve the DRBC basin-wide TDS effluent criterion of 1000 mg/l. In light of the high cost MOPAC contended it would incur if it were required to make on-site treatment modifications, the Commission staff offered MOPAC the option to instead provide the downstream irrigation user, MGC, with a suitable alternative water supply. MGC apparently agreed to accept this alternative in April of 2006. However, in a letter to PADEP and the DRBC dated July 11, 2006, MOPAC advised the agencies that it was still considering on-site treatment alternatives. MOPAC requested that PADEP and the Commission postpone any action on the NPDES permit for at least 210 days to allow MOPAC more time identify to its optimum solution. In a letter dated September 6, 2006, Commission staff advised MOPAC that while it recognized MOPAC's interest in continuing its efforts to seek cost-effective means of treating its effluent at its source, MOPAC's effluent TDS continues to adversely affect the use of the Skippack Creek that DRBC's regulations require us under these circumstances to protect.

Moreover, the ongoing interference with MGC's irrigation use and potential damage to MGC's property may well place MOPAC in violation of Condition I.k. of its current docket, which requires MOPAC to discharge waste water "in such manner as to ... avoid any injury to public and private property." Affording MOPAC an additional 210 days, plus an indeterminate amount of time to design, obtain permits and to implement the selected solution would allow these potential violations to continue. Therefore, the Commission staff has determined that a 210-day extension of time for MOPAC to further assess its options is unacceptable unless without further delay MOPAC provides a remedy that is protective of MGC's irrigation use.

In response to the DRBC September 6, 2006 letter, Smithfield Beef Group (MOPAC) advised the Commission staff in a letter dated September 21, 2006 that it would either identify and implement a reasonable cost effective solution to the soil/turf concerns arising from the irrigation water or "begin to lay the groundwork" to implement an alternative irrigation water source in advance of the 2007 irrigation season. The Commission staff believes that the provision of a permanent alternate irrigation water source would resolve the matter. Nevertheless, the Commission has no objection to MOPAC pursuing the soil/turf option as long as the selected plan is implemented by April 15, 2007 and MOPAC takes simultaneous steps to implement an alternative irrigation water source by the same date unless and until the Executive

Director determines that further implementation of the alternative source is no longer needed. In addition, while the Commission staff will work with MOPAC and MGC to achieve consensus regarding the selected plan, the Commission confers on the Executive Director, subject to the right of any aggrieved party to appeal to the full Commission, the authority to determine which consultant recommendations and plan or other actions satisfy the Commission's regulations and the requirements of this docket.. The Decision section of this docket contains a required schedule with interim milestones to implement the selected option. As provided in Condition II.b of the Decision section, MOPAC shall comply with the requirement to implement the selected option by April 15, 2007. The Executive Director may approve changes to the schedule contained in the Decision section of the docket for good cause.

If MOPAC demonstrates to the satisfaction of the Executive Director that it has successfully implemented paragraphs 2.A. or 2.B. specified in Condition II.b, MOPAC's effluent TDS limitation shall be modified from 1000 mg/l to 3100 mg/l conditioned on permanent implementation of the selected option. MOPAC's effluent will remain subject to Condition II.l. which requires the docket holder to make effluent discharge in a manner as to avoid injury to or damage to fish or wildlife and to avoid any injury to public or private property.

The nearest surface water intake of record for public water supply downstream of the project discharge is Aqua Pennsylvania Inc.'s Wetherhills Station Dam on the Perkiomen Creek, approximately 15 river miles downstream from the IWTP discharge. The TDS in the project's discharge will not result in a violation of the 500 mg/l stream water quality standard at the point of intake or withdrawal.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

C. DECISION

I. Effective on the approval date for Docket No. D-96-21-2 below, Docket Nos. D-96-21, D-83-6, D-81-52, D-77-93, and D-75-51 are terminated and replaced by Docket No. D-96-21-2.

II. The project and appurtenant facilities as described in Section A "Physical Features" of this docket, are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the PADEP in its NPDES permit, and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission's.

b. In order to resolve the adverse impact on the use of Skippack Creek by MOPAC's effluent, MOPAC will comply with the following:

1. The docket holder shall comply with the requirements contained in the Effluent Table in Section A.4.d. of this docket.

2.A. Soil and turf option.

At its option, MOPAC may develop and implement a soil and turf plan, subject to the following conditions, requirements and schedule:

i. By October 16, 2006 - Retain an independent consultant satisfactory to the Executive Director to review existing data, MGC course conditions and operating practices, perform additional analysis as approved by the Executive Director, and submit a report to the Executive Director containing recommendations to address the soil/turf conditions arising from the irrigation water.

ii. By January 1, 2007 – Submit to the DRBC, PADEP and MGC the consultant report presenting the recommendations to address the soil/turf conditions arising from the irrigation water.

iii. By January 22, 2007 convene a meeting with DRBC, PADEP and MGC to discuss the recommendations to address the soil/turf conditions arising from the irrigation water.

DRBC will work together with MGC, MOPAC and PADEP to select a plan acceptable to all of them. If the above-mentioned entities and agencies cannot agree upon a plan, the Executive Director will determine the appropriate corrective action or deny use of this option 2.A. and advise the parties of her decision by February 22, 2007. Any aggrieved party may appeal the Executive Director's decision to the full Commission, but MOPAC shall implement the action selected by the Executive Director during the pendency of any appeal unless the Executive Director or Commission grant a stay. MOPAC shall fully implement the recommendations and plan accepted by all of the parties, or the action selected by the Executive Director, by April 15, 2007.

If the selected recommendations and plan require a modification of the operating practices or soil/turf treatment at the MGC, MOPAC shall:

iv. By March 1, 2007, begin the implementation of the selected recommendations and plan, including without limitation entering into a binding agreement with MGC to fund any actions to be taken by MGC pursuant to the selected plan.

v. By April 15, 2007, fully implement the selected recommendations and plan.

vi. By June 1, 2007, submit a detailed report to DRBC for the approval of the Executive Director, with copies to PADEP and MGC, analyzing the success of the selected recommendations and plan, proposing any additional steps necessary to correct any problems found, and committing the financial and other resources necessary to implement such steps promptly. MOPAC shall modify the report as required by the Executive Director. MOPAC shall thereafter implement the additional steps detailed in the report in accordance with a schedule established by the Executive Director.

2.B. Alternative irrigation water source.

MOPAC shall take immediate actions, including but not limited to those identified below, to implement an alternative irrigation water source by April 15, 2007. If MOPAC elects to pursue the options provided in paragraphs 2.A. and/or 2.C., it shall implement this alternative irrigation water source requirement simultaneously with its pursuit of paragraphs 2.A. and/or 2.C. MOPAC may, however, implement this paragraph 2.B. as its sole option. MOPAC shall conduct and prepare all necessary engineering designs/drawings and other investigations, and prepare and submit all necessary applications for approvals/permits for an alternative irrigation water source. The Executive Director may advise MOPAC that the implementation of this alternative by April 15, 2007 is not required based on the analysis of the recommendations in paragraph 2.A. above or any plan submitted pursuant to paragraph 2.C. below.

2.C. Source reduction or treatment option

At its option MOPAC may propose a source reduction or treatment plan to the Executive Director to achieve the 1000 mg/l TDS limit by April 15, 2007. If MOPAC selects this option, it shall simultaneously comply with paragraph 2.B. above unless and until the Executive Director determines and advises MOPAC that the implementation of paragraph 2.B. by April 15, 2007 is not required based on the Executive Director's review of MOPAC's source reduction or treatment plan and implementation schedule.

The Executive Director may adjust the above compliance dates in paragraphs 2.A., 2.B. and 2.C. above for good cause. The Executive Director may also approve a compliance schedule for MOPAC to achieve its TDS limit of 1000 mg/l upon demonstration by MOPAC that it has in place and has fully implemented measures satisfactory to the Executive Director to avoid damage to MGC during the duration of the compliance schedule.

c. The docket holder may petition PADEP to reduce TDS monitoring frequency once a discharge-specific, statistically derived relationship between TDS and osmotic pressure has been established.

d. The facility and operational records shall be available at all times for inspection by the DRBC.

e. The facility shall be operated at all times to comply with the requirements of the *Water Quality Regulations* of the DRBC.

f. The docket holder shall maintain and make available to DRBC upon request, records identifying the sources, volumes and characteristics of all wastewaters and sludges treated at the IWTP, as well as the dates when off-site wastes were received and treated. Records are to be retained for 5 years.

g. Except as otherwise authorized by this docket, if the docket holder seeks relief from any limitation based upon a DRBC water quality standard or minimum treatment requirement, the docket holder shall apply for approval from the Executive Director or for a docket revision in accordance with Section 3.8 of the *Compact* and the *Rules of Practice and Procedure*.

h. If at any time the receiving treatment plant proves unable to produce an effluent that is consistent with the requirements of this docket approval, no further connections shall be permitted until the deficiency is remedied.

i. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

j. The docket holder is permitted to treat and discharge the categories of wastewaters defined in the "Area Served" section of this docket.

k. The docket holder shall make wastewater discharge in such a manner as to avoid injury or damage to fish or wildlife and shall avoid any injury to public or private property.

l. No sewer service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).

m. Nothing in this docket approval shall be construed as limiting the authority of DRBC to adopt and apply charges or other fees to this discharge or project.

n. The issuance of this docket approval shall not create any private or proprietary rights in the waters of the Basin, and the Commission reserves the right to amend, suspend or rescind the docket for cause, in order to ensure proper control, use and management of the water resources of the Basin.

o. A complete application for the renewal of this docket, or a notice of intent to cease the operations (withdrawal, discharge, etc.) approved by this docket by the expiration date, must be submitted to the DRBC at least 12 months prior to the expiration date below (unless permission has been granted by the DRBC for submission at a later date), using the appropriate DRBC application form. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below, the terms and conditions of this docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

p. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.

q. The docket holder and any other person aggrieved by a reviewable action or decision taken by the Executive Director or Commission pursuant to this docket may seek an administrative hearing pursuant to Articles 5 and 6 of the Commission's *Rules of Practice and Procedure*, and after exhausting all administrative remedies may seek judicial review pursuant to Article 6, section 2.6.10 of the *Rules of Practice and Procedure* and section 15.1(p) of the Commission's *Compact*.

BY THE COMMISSION

DATE APPROVED: September 27, 2006

EXPIRATION DATE: September 27, 2011